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PHILIPS ELECTRONICS NORTH AMERICA CORPORATION
INTELLECTUAL PROPERTY & STANDARDS
370 W. TRIMBLE ROAD MS 91/MG
SAN JOSE, CA 95131

EXAMINER	
BODDIE, WILLIAM	
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/516,847	BERKEL VAN, CORNELIS	
	Examiner	Art Unit	
	William L. Boddie	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. In a preliminary amendment, the Applicant amended claims 1-24 and 26-35. Currently claims 1-35 are pending.

Information Disclosure Statement

2. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609.04(a) states, "the list may not be incorporated into the specification but must be submitted in a separate paper." Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Specification

3. The disclosure is objected to because of the following informalities: there are no headings for the different sections in the specification.

Appropriate correction is required.

Claim Objections

4. Claim 24 is objected to because of the following informalities: claim 24 states, "a resonant circuits." This is incorrect grammatically. Appropriate correction is required.

5. Claim 33 is objected to because of the following informalities: claim 33 states, "a user-held devices." This is incorrect grammatically. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claims 17, 18 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Specifically, it is not clear as to which claim the Applicant intends these claims to depend from.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claims 1-2, 4-15, 19-22, 24-33 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ely et al. (US 6,667,740) in view of Katabami (US 5,528,002).

With respect to claim 1, Ely discloses, a user input system (fig. 1, for example), comprising:

means for generating an alternating magnetic field (29 and 51 in fig. 3; col. 13, lines 10-44);

a user-holdable (5 in fig. 1) device comprising a resonant circuit (43 and 45 in fig. 3), the resonant circuit being operable to provide an alternating voltage induced from the alternating magnetic field (39-1 in fig. 3; col. 8, lines 30-36 for example); and

means for sensing an output (31-37 in fig. 3, for example).

Ely does not expressly disclose means for coupling the resonant circuit to ground, or a conducting tip.

Katabami discloses, a user input system (fig. 10, for example), comprising:

means for generating a magnetic field (col. 7, lines 13-18);

a user-holdable device comprising a resonant circuit (77 and 78 in fig. 3a), means for coupling to ground (4 in fig. 3a), and a conducting tip (3 in fig. 3a), the means for coupling to ground being coupled to a first side of the resonant circuit (top side in fig. 3a) and the conducting tip being coupled to a second side of the resonant circuit (bottom in fig. 3a), the resonant circuit being operable to provide an alternating voltage (col. 6, lines 40-45 for example); and

means for sensing an output provided at the conducting tip due to the alternating voltage source when the conducting tip is in the vicinity of the means for sensing an output (3-19 in fig. 1a).

Ely and Katabami are analogous art because they are both from the same field of endeavor namely, electromagnetic sensor tablets.

At the time of the invention it would have been obvious to one of ordinary skill in the art to couple the resonance circuit of Ely to ground and include the conducting tip as taught by Katabami.

The motivation for doing so would have been to achieve a more stable and predictable operation of the tablet (Katabami; col. 1, lines 38-44).

With respect to claim 2, Ely and Katabami disclose, a system according to claim 1 (see above).

Ely further discloses, wherein the means for sensing an output provided by the conducting tip comprises means for determining the strength of the output as sensed at

plural locations (59 in fig. 3) and means for comparing the plural sensed output strengths to determine a position of the conducting tip relative to the plural locations (col. 8, lines 45-51; col. 9, lines 3-24).

With respect to claim 4, Ely and Katabami disclose, a system according to claim 1 (see above).

Ely, when combined with Katabami, further discloses, wherein the sensing means comprises an electric field sensing reception electrode (31 in fig. 7b for example) and current sensing circuitry (Ely; 69, 71, 73, 59 in fig. 3) for determining a current excited in the electric field sensing reception electrode by an electric field generated (Ely; col. 9, lines 59-64) by the conducting tip (Katabami; 3 in fig. 2).

With respect to claim 5, Ely and Katabami disclose, a system according to claim 4 (see above).

Ely, when combined with Katabami, discloses, wherein the sensing means is arranged to substantially filter out currents produced in the electric field sensing reception electrode by electric fields generated by the means for generating an alternating magnetic field (Ely; col. 8, line 51 – col. 9, line 2).

With respect to claim 6, Ely and Katabami disclose, a system according to claim 5 (see above).

Ely, when combined with Katabami, discloses, wherein the filtering out is performed using a difference in phase between the electric field generated by the means for generating an alternating magnetic field and the electric field generated by the conducting tip (Ely; col. 9, line 57 – col. 10, line 7).

With respect to claim 7, Ely and Katabami further disclose, a system according to claim 1 (see above).

Ely further discloses, wherein shielding is provided to substantially block any electric field generated by the means for generating an alternating magnetic field and substantially allow to pass the magnetic field generated by the means for generating an alternating magnetic field (21 in fig. 2; col. 7, lines 31-38).

With respect to claim 8, Ely and Katabami disclose, a system according to claim 4 (see above).

Ely, when combined with Katabami, discloses, the system is arranged to determine the distance of the conducting tip from the plane of the electric field reception electrode, compare the determined distance to a threshold value, and if the determined value is less than or equal to the threshold then treat the conducting tip position as input and if the determined value is greater than the threshold then not treat the conducting tip position as input (Ely; col. 11, lines 22-61).

With respect to claim 9, Ely and Katabami disclose, a system according to claim 1 (see above).

Ely further discloses, wherein the user-holdable device is for use as a pen or stylus (fig. 1).

With respect to claim 10, Ely and Katabami disclose, a system according to claim 9 (see above).

Ely, when combined with Katabami, further discloses, wherein the conducting tip (Katabami; 3 in fig. 1a) is adapted to provide a writing feel to the user (Katabami; clearly shaped to effectuate a writing feel; in fig. 9b).

With respect to claim 11, Ely and Katabami disclose, a system according to claim 1 (see above).

Ely, when combined with Katabami, discloses, wherein the user-holdable device comprises an external housing by which the user is to hold the user-holdable device (Ely; 152, 154 in fig. 9a), and wherein the means for coupling to ground is such that the coupling to ground is made via the user's hand when the user is holding the user-holdable device (Katabami; col. 7, lines 12-18).

With respect to claim 12, Ely and Katabami disclose, a system according to claim 11 (see above).

Ely, when combined with Katabami, discloses, wherein the means for coupling to ground is further arranged to reduce shielding of the resonant circuit from the magnetic field generated by the means for generating an alternating magnetic field (Katabami; note that the ground coupling is merely a ring around the end of the stylus; and does not span the entirety of the stylus).

With respect to claim 13, Ely and Katabami disclose, a system according to claim 11 (see above).

Ely, when combined with Katabami, further discloses, wherein the means for coupling to ground comprises at least a portion of the housing being coupled to the first

side of the resonant circuit and being sufficiently conducting for the coupling to ground via the user's hand (Katabami; col. 7, lines 12-18).

With respect to claim 14, Ely and Katabami disclose, a system according to claim 13 (see above).

Ely, when combined with Katabami, further discloses, wherein the resonant circuit (Katabami; 77, 78 in fig. 3a) is positioned in the user-holdable device at a location away from the conduction portion (4 in fig. 3a) of the housing (clear from fig. 3a; that the resonance circuit is positioned away from the conduction portion).

With respect to claim 15, Ely and Katabami disclose, a system according to claim 12 (see above).

Ely, when combined with Katabami, further discloses, wherein the user-holdable device further comprises a coil (Katabami; 4 in fig. 3a) arranged to couple the resonant circuit to the user's hand whilst substantially allowing the magnetic field generated by the means for generating an alternating magnetic field to reach the resonant circuit (Katabami; col. 7, lines 12-18).

With respect to claim 19, Ely and Katabami disclose, a system according to claim 1 (see above).

Ely further discloses, comprising one or more further user-holdable devices, respective user-holdable devices having different tuned frequencies (col. 23, lines 59-63).

With respect to claims 20-22, Ely and Katabami disclose, a user input system according to claim 1 (see above).

Ely further discloses, an active matrix LCD display device (3 in fig. 2), wherein the sensing means are arranged to sense the output provided by the conducting tip in an area corresponding to a display area of the LCD (clear from fig. 2).

With respect to claim 24, Ely discloses a user-holdable device for a user to provide input to a user input system (fig. 1), comprising:

a resonant circuit (41 in fig. 3) being operable to provide an alternating voltage induced from an alternating magnetic field (39-1 in fig. 3; col. 8, lines 30-36 for example).

Ely does not expressly disclose a means for coupling to ground or a conducting tip.

Katabami discloses, a user input system (fig. 10, for example), comprising:

means for generating a magnetic field (col. 7, lines 13-18);

a user-holdable device comprising a resonant circuit (77 and 78 in fig. 3a), means for coupling to ground (4 in fig. 3a), and a conducting tip (3 in fig. 3a), the means for coupling to ground being coupled to a first side of the resonant circuit (top side in fig. 3a) and the conducting tip being coupled to a second side of the resonant circuit (bottom in fig. 3a), the resonant circuit being operable to provide an alternating voltage (col. 6, lines 40-45 for example); and

means for sensing an output provided at the conducting tip due to the alternating voltage source when the conducting tip is in the vicinity of the means for sensing an output (3-19 in fig. 1a).

At the time of the invention it would have been obvious to one of ordinary skill in the art to couple the resonance circuit of Ely to ground and include the conducting tip as taught by Katabami.

The motivation for doing so would have been to achieve a more stable and predictable operation of the tablet (Katabami; col. 1, lines 38-44).

With respect to claim 25, Ely and Katabami disclose, a device according to claim 24 (see above).

Ely further discloses, that the device is for use as pen or stylus (fig. 1).

With respect to claim 26, Ely and Katabami disclose, a device according to claim 25 (see above).

Ely, when combined with Katabami, further discloses, wherein the conducting tip (Katabami; 3 in fig. 1a) is adapted to provide a writing feel to the user (clearly shaped to effectuate a writing feel; in fig. 9b).

With respect to claim 27, Ely and Katabami disclose, a device according to claim 24 (see above).

Ely, when combined with Katabami, discloses, wherein the user-holdable device comprises an external housing by which the user is to hold the user-holdable device (Ely; 152, 154 in fig. 9a), and wherein the means for coupling to ground is such that the coupling to ground is made via the user's hand when the user is holding the user-holdable device (Katabami; col. 7, lines 12-18).

With respect to claim 28, Ely and Katabami disclose, a system according to claim 27 (see above).

Ely, when combined with Katabami, discloses, wherein the means for coupling to ground is further arranged to reduce shielding of the resonant circuit from the magnetic field generated by the means for generating an alternating magnetic field (Katabami; note that the ground coupling is merely a ring around the end of the stylus; and does not span the entirety of the stylus).

With respect to claim 29, Ely and Katabami disclose, a system according to claim 27 (see above).

Ely, when combined with Katabami, further discloses, wherein the means for coupling to ground comprises at least a portion of the housing being coupled to the first side of the resonant circuit and being sufficiently conducting for the coupling to ground via the user's hand (Katabami; col. 7, lines 12-18).

With respect to claim 30, Ely and Katabami disclose, a system according to claim 29 (see above).

Ely, when combined with Katabami, further discloses, wherein the resonant circuit (Katabami; 77, 78 in fig. 3a) is positioned in the user-holdable device at a location away from the conduction portion (4 in fig. 3a) of the housing (clear from fig. 3a; that the resonance circuit is positioned away from the conduction portion).

With respect to claim 31, Ely and Katabami disclose, a system according to claim 28 (see above).

Ely, when combined with Katabami, further discloses, wherein the user-holdable device further comprises a coil (Katabami; 4 in fig. 3a) arranged to couple the resonant circuit to the user's hand whilst substantially allowing the magnetic field generated by

the means for generating an alternating magnetic field to reach the resonant circuit (Katabami; col. 7, lines 12-18).

With respect to claim 32, Ely and Katabami disclose, a system according to claim 24 (see above).

Ely further discloses, comprising one or more further user-holdable devices, respective user-holdable devices having different tuned frequencies (col. 23, lines 59-63).

With respect to claim 33, Ely discloses, a method of sensing user input from a user-held device, comprising:

generating an alternating magnetic field that passes in to the user-held object (39-1 in fig. 3; col. 8, lines 30-36 for example);

inducing an alternating voltage in the user-held object from the alternating magnetic field (col. 8, lines 30-36);

providing an output from the alternating voltage of the user-held device (39-2,3,4,5 in fig. 3); and

using sensing means to sense the output when the user-held device is positioned in the vicinity of the sensing means (31-37 in fig. 3).

Ely does not expressly disclose a conducting tip.

Katabami discloses, a user input system (fig. 10, for example), comprising:

means for generating a magnetic field (col. 7, lines 13-18);

a user-holdable device comprising a conducting tip (3 in fig. 3a).

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the conducting tip as taught by Katabami in the pen of Ely.

The motivation for doing so would have been to achieve a more stable and predictable operation of the tablet (Katabami; col. 1, lines 38-44).

With respect to claim 35, Ely and Katabami disclose, a method according to claim 33 (see above).

Ely, when combined with Katabami, further discloses, wherein the sensing means comprises an electric field sensing reception electrode (31 in fig. 7b for example) and current sensing circuitry (Ely; 69, 71, 73, 59 in fig. 3) for determining a current excited in the electric field sensing reception electrode by an electric field generated (Ely; col. 9, lines 59-64) by the conducting tip (Katabami; 3 in fig. 2).

10. Claims 3; 16-17 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ely et al. (US 6,667,740) in view of Katabami (US 5,528,002) and further in view of Stein et al. (US 5,365,461).

With respect to claim 3, Ely and Katabami disclose, a system according to claim 1 (see above).

Neither Ely nor Katabami disclose, a resistive sheet.

Stein discloses, wherein the means for sensing the user's finger comprises the resistive sheet (col. 3, lines 42-46), the current measuring means (14-17 in fig. 1) arranged to measure a capacitive current flowing from the conducting tip to the resistive sheet (col. 4, lines 7-14).

Ely, Katabami and Stein are analogous art because they are all from the same field of endeavor namely touch screen systems using tablets.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the dual stylus and finger sensing means of Stein in the device of Ely and Katabami.

The motivation for doing so would have been to allow the user to additionally touch the system to provide input.

With respect to claim 16, Ely and Katabami disclose a system according to claim 1 (see above).

Neither Ely nor Katabami expressly disclose a means for sensing a user's fingers.

Stein discloses, a user input device comprising a means for both sensing a user's fingers and a stylus (fig. 1).

Ely, Katabami and Stein are analogous art because they are all from the same field of endeavor namely touch screen systems using tablets.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the dual stylus and finger sensing means of Stein in the device of Ely and Katabami.

The motivation for doing so would have been to allow the user to additionally touch the system to provide input.

With respect to claim 17, Ely, Katabami and Stein disclose, a system according to claim 16 (see above).

Stein further discloses, wherein the means for sensing the user's finger comprises the resistive sheet (col. 3, lines 42-46), the current measuring means (14-17 in fig. 1), and means for distinguishing between sensing of the user's finger and sensing of the user-holdable device (col. 2, lines 19-21).

With respect to claim 34, Ely and Katabami disclose, a system according to claim 33 (see above).

Neither Ely nor Katabami disclose, a resistive sheet.

Stein discloses, wherein the means for sensing the user's finger comprises the resistive sheet (col. 3, lines 42-46), the current measuring means (14-17 in fig. 1) arranged to measure a capacitive current flowing from the conducting tip to the resistive sheet (col. 4, lines 7-14).

Ely, Katabami and Stein are analogous art because they are all from the same field of endeavor namely touch screen systems using tablets.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the dual stylus and finger sensing means of Stein in the device of Ely and Katabami.

The motivation for doing so would have been to allow the user to additionally touch the system to provide input.

11. Claims 16 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ely et al. (US 6,667,740) in view of Katabami (US 5,528,002) and further in view of Teterwak (US 5,777,898).

With respect to claim 16, Ely and Katabami disclose a system according to claim 1 (see above).

Neither Ely nor Katabami expressly disclose a means for sensing a user's fingers.

Teterwak discloses, a user input device comprising a means for both sensing a user's fingers and a stylus (col. 5, lines 15-21).

Ely, Katabami and Teterwak are analogous art because they are all from the same field of endeavor namely touch screen systems using tablets.

At the time of the invention it would have been obvious to one of ordinary skill in the art to include the dual stylus and finger sensing means of Teterwak in the device of Ely and Katabami.

The motivation for doing so would have been to allow the user to additionally touch the system to provide input.

With respect to claim 18, Ely, Katabami and Teterwak disclose, a system according to claim 16 (see above).

Teterwak further discloses, wherein the means for sensing a user's finger comprises an electric field sensing transmission electrode (col. 5, lines 42-46), the electric field sensing reception electrode (col. 5, lines 21-26), and circuitry for sensing changes cause by the user's finger to a current excited in the electric field sensing reception electrode by an electric field generated by the electric field sensing transmission electrode (16-19 in fig. 1).

12. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ely et al. (US 6,667,740) in view of Katabami (US 5,528,002) and further in view of Colgan et al. (US 6,204,897).

With respect to claim 23, Ely and Katabami disclose a display device according to claim 20 (see above).

Neither Ely nor Katabami disclose, wherein the resistive sheet is provided by a common electrode of the display device.

Colgan discloses, wherein the resistive sheet is provided by a common electrode of the display device (col. 2, lines 48-52).

Colgan, Ely and Katabami are all analogous art because they are all from the same field of endeavor namely, touch screen design circuitry.

At the time of the invention it would have been obvious to one of ordinary skill in the art to replace the sensing means of Ely and Katabami with the resistive sheet as taught by Colgan.

The motivation for doing so would have been the well-known benefit of reducing the number of manufacturing steps.

Conclusion

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William L. Boddie whose telephone number is (571) 272-0666. The examiner can normally be reached on Monday through Friday, 7:30 - 4:30 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sumati Lefkowitz can be reached on (571) 272-3638. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Wlb
9/24/07

SUMATI LEFKOWITZ
SUPERVISORY PATENT EXAMINER